

From: [Elliott, Vincent E. \(GSFC-1553\)](#)
To: [Elliott, Vincent E. \(GSFC-1553\)](#)
Subject: In the news...
Date: Tuesday, July 30, 2019 10:50:46 AM

'In the news' is distributed to all email addresses on the Lucy mission contact list. It's clickable articles provide news of the day related to NASA with a planetary focus. These are just a sampling of what's out there in the media...the views and opinions expressed in these article are those of the authors and do not necessarily reflect the official policy or position of any agency of the U.S. government. If you wish to be removed from this distribution, please let me know.

TOP STORIES

[Washington Times](#) (7/29, Boylan) "Most federal agencies lack a cybersecurity risk management strategy program and are susceptible to "the loss of sensitive data or compromise of agency systems," according to a Government Accountability Office report. In an audit of 23 agencies, the government watchdog found that only seven had proper cybersecurity firewalls in place and many said the greatest challenge was finding personnel to develop them. ... The GAO noted comments from NASA's chief cyber risk officer on the complexity of cybersecurity risk management — 'a multi-disciplinary field that blends technical cyber expertise with project management principles and a business-focused management background.'"

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OTHER NEWS

TESS Successfully Completes First Year Of Science Operations

[Sci-News](#) (7/29) "NASA's Transiting Exoplanets Survey Satellite (TESS) has discovered over two dozen extrasolar planets and captured data on other astronomical events (flare stars, eclipsing binaries, comets, asteroids, white dwarfs and supernovae) occurring in the southern sky during its first year of science operations."

NASA TESS Mission Completes Its First Year Of Scanning The Sky

[SlashGear](#) (7/29) "NASA has announced that the TESS (Transitioning Exoplanet Survey Satellite) mission has completed its first 12 months of surveying the skies. During its first year, TESS has discovered 21 planets outside of our solar system. TESS has also captured data on other interesting events in the southern sky. TESS started hunting for exoplanets in the southern sky in July of 2018. It has also collected data on supernovae, black holes, and other phenomena in its line of sight."

Planet-Hunting Satellite TESS Finds 'Missing Link' Exoplanets

[CNN](#) (7/29, Strickland) "NASA's planet-hunting satellite TESS has discovered more

than 20 exoplanets during its first year of observations, including some “missing link” planets entirely unlike anything in our own solar system.”

Distant Alien Planet With Three Red Suns Discovered

[Fox News](#) (7/29, Rogers) “Imagine living in a world of triple sunsets. Scientists have used NASA’s Transiting Exoplanet Survey Satellite to find an exoplanet with three red suns. The exoplanet LTT 1445Ab orbits one of the three suns, all of which are described as mid-to-late-life red dwarfs. ‘The planet transits the primary star in the system,’ researchers explain, in a paper which is available on the scientific repository arXiv.”

NASA Telescope Discovers Three Intriguing Planets Hiding Around Nearby Star

[CNET News](#) (7/29, Kooser) “NASA’s Transiting Exoplanet Survey Satellite (TESS) just scored another science triumph with the discovery of three fascinating planets hanging out at a nearby star. One is a super-Earth, slightly bigger than our own planet. The other two are Neptune-like exoplanets, the likes of which you won’t find in our own solar system.”

How Salts On The Surface Could Aid In Modeling Europa’s Ocean

[Astrobiology Magazine](#) (7/29) “Even though there are planned missions to explore Jupiter’s moon Europa, they are unlikely to sample the depths of its potentially habitable ocean. So a new paper, published in the journal *Icarus*, lays out how we may be able to probe those deep waters from their expression on the surface. ... Most of what we know about the moon is thanks to NASA’s Galileo mission, which launched in 1989 and found evidence for Europa’s salty oceans. To date, no mission has landed on the moon.”

How Astronomers Missed The Huge Asteroid That Just Flew Unexpectedly By Earth

[NBC News](#) (7/29) “A large asteroid just whizzed past our planet – and astronomers weren’t expecting it. Ranging in size from 187 to 427 feet (57 to 130 meters) wide, the space rock named 2019 OK snuck up on us Thursday morning (July 25). It swung as close as 45,000 miles (73,000 kilometers) from Earth, what one astronomer told *The Washington Post* was ‘uncomfortably close.’ ... Astronomers around the world continue to work to monitor any asteroids that pose danger to us. Several ongoing large-sky surveys to track near-Earth asteroids. For example, NASA is tracking over 90 percent of the asteroids that are 0.62 miles (1 km) or larger and are orbiting close to our planet, according to NASA’s Jet Propulsion Laboratory.”

After Moon Landing Anniversary, NASA Aims Beyond Earth Orbit

[Voice of America](#) (7/22) “What looks like an unusual giant orange metal canister,

rising high above the windy and humid Alabama landscape, has some familiar design features. 'There's a lot of heritage shuttle technology here,' said NASA engineer Mike Nichols. But this canister is not intended to return the iconic fixed-wing, reusable space shuttle back into orbit, which was retired in 2011 – the last time NASA sent an astronaut into space from U.S. soil."

Watch Japan's Hayabusa2 Wild Smash And Grab Landing On Asteroid Ryugu

[CNET News](#) (7/29, Serrels) "Earlier this month, July 10, the Hayabusa2 spacecraft touched down briefly on asteroid Ryugu to collect samples to take back to Earth. The robotic explorer is making quite a name for itself on Ryugu and, thanks to a public donation, its fitted with a camera that lets us Earthlings experience exactly what it experiences. On Friday, the Japan Aerospace Exploration Agency (JAXA) released new footage of Hayabusa's smash and grab giving up a close up of the historic touchdown."

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Thanks,

Vince Elliott

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Planetary Science Business Branch Head (155.3)

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From: [Elliott, Vincent E. \(GSFC-1553\)](#)
To: [Elliott, Vincent E. \(GSFC-1553\)](#)
Subject: In the news...
Date: Monday, July 29, 2019 8:31:03 AM

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TOP STORIES

Mars 2020 Rover Flexes Its Arm Ahead Of 2020 Launch

[New Atlas](#) (7/28) "NASA's Mars 2020 rover got a bit of a workout recently as it flexed its mechanical muscles. Captured in a time-lapse video, the 7-ft (2.1 m) robotic arm with its 88-lb (40-kg) "hand" did a bit of curling as space agency engineers guided it from its deployed to its stowed configuration ahead of the unmanned explorer's launch to the Red Planet next year."

Asteroid Zoomed 'Near' Earth Late Wednesday, Astronomers Say

[USA Today](#) (7/26, Rice) "A large asteroid 'narrowly' missed the Earth overnight Wednesday, astronomers announced. According to NASA, the space rock was an estimated 187 to 427 feet wide. 'The closest it came to Earth was just under 45,000 miles, a safe distance, but still much less than the distance between the Earth and moon,' Astronomy magazine said. The moon is about 239,000 miles from the Earth."

Used SpaceX Dragon Cargo Ship Arrives At Space Station For Record 3rd Time

[SPACE](#) (7/27) "SpaceX's robotic Dragon cargo capsule arrived at the International Space Station today (July 27), ending a two-day orbital chase and setting a new record for SpaceX's reusable spacecraft. The Dragon, which launched Thursday (July 25) from Florida's Cape Canaveral Air Force Station atop a two-stage Falcon 9 rocket, was captured by the space station's huge robotic arm at 9:11 a.m. EDT (1311 GMT) as both spacecraft sailed 267 miles (430 kilometers) above the coast of southern Chile in South America."

SpaceX Flies Its Starhopper Mars Rocket Prototype For The First Time

[Forbes](#) (7/26, O'Callaghan) "In a historic moment for the company, SpaceX has successfully flown its prototype Mars vehicle called Starhopper and taken a crucial step towards ultimately landing humans on the Red Planet. Late yesterday, July 25 in Boca Chica, Texas, the company's experimental vehicle used its single Raptor engine to hover briefly off the ground, reaching a height of about 20 meters above the

ground. The “hop” lasted just seconds but gave us a glimpse of what the future of rocketry may hold.”

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OTHER NEWS

Burying CAESAR: How NASA Picks Winners--and Losers--in Space Exploration

[Scientific American](#) (7/25, Andrews) “The planetary science community rippled with euphoria in June when Dragonfly, a bold mission to send a nuclear-powered dual quadcopter to Saturn’s largest moon, Titan, was given the green light by NASA. Yet even as the Dragonfly team erupted in celebration at the news, those working on its competitor, the Comet Astrobiology Exploration Sample Return (CAESAR) mission, mourned. If CAESAR ever launches, it will be many years after Dragonfly, much later than its proposers had planned; more likely, in its current form, it will never be built at all.”

The Voyage Of The Beagle And The Future Of Space Science

[Scientific American](#) (7/22, Hammel, Mountain) “In 1820, the British Royal Navy was the largest in the world, with so many ships that one extra 10-gun brig-sloop lay idle for more than half a decade before it was refitted to conduct hydrographic surveys. She embarked on several voyages, but it was her second trip that catapulted the ship into world-wide renown. Nearly 200 years later schoolchildren learn her name in history and biology classes. ... Like the repurposed Beagle, NASA’s new Space Launch System (SLS), designed to send humans beyond Earth’s orbit, can also serve another purpose: It can carry robotic spacecraft to the furthest reaches of our solar system.”

‘It Snuck Up On Us’: Scientists Stunned By ‘city-killer’ Asteroid That Just Missed Earth

[Washington Post](#) (7/26, Chiu) “Alan Duffy was confused. On Thursday, the astronomer’s phone was suddenly flooded with calls from reporters wanting to know about a large asteroid that had just whizzed past Earth, and he couldn’t figure out ‘why everyone was so alarmed.’ ‘I thought everyone was getting worried about something we knew was coming,’ Duffy, who is lead scientist at the Royal Institution of Australia, told The Washington Post. Forecasts had already predicted that a couple of asteroids would be passing relatively close to Earth this week.”

‘City-killer’ Asteroid Just Misses Earth, Shocks Scientists

[The Hill](#) (7/26, Seipel) “This week, Earth had a close call with what some scientists call a “city-killer” asteroid, which, if it had made impact, would have hit the planet with 30 times the power of the atomic bomb that destroyed Hiroshima. Asteroid 2019 OK sped by Earth on Wednesday, flying some 45,000 miles away, inside the orbit of the moon. Scientists were shocked to discover the asteroid only within days of its

passing, and only announced its presence hours before it became visible. According to The Washington Post, Asteroid 2019 OK was discovered by two astronomy teams in Brazil and the United States."

NASA's Planet-Hunting TESS Telescope Finds 21 New Worlds In 1st Year

[SPACE](#) (7/26, Bartels) "NASA's TESS mission was designed to hunt alien planets, but it's done more than that in its first year at work, as a new NASA video highlights. Sure, the telescope, which is now halfway through its primary mission, has gathered enough data to let scientists identify 21 new exoplanets already. But in between planet-spotting, the instrument, which is formally called the Transiting Exoplanet Survey Satellite, has also dabbled in the art of catching asteroids and comets — even comets in other solar systems. And TESS has also recording flashes from six different supernovas marking the explosions of dead stars."

NASA's TESS Mission Completes First Year Of Survey, Turns To Northern Sky

[Phys \(UK\)](#) (7/26) "NASA's Transiting Exoplanet Survey Satellite (TESS) has discovered 21 planets outside our solar system and captured data on other interesting events occurring in the southern sky during its first year of science. TESS has now turned its attention to the Northern Hemisphere to complete the most comprehensive planet-hunting expedition ever undertaken."

TESS Completes Survey Of Southern Sky, Marking Halfway Mark Of Mission

[New Atlas](#) (7/26) "TESS was launched on April 18, 2018, from Cape Canaveral Air Force Station atop a SpaceX Falcon 9 rocket with the goal of carrying out the most comprehensive exoplanet survey to date. The successor to the Kepler mission, TESS is tasked with examining"

Astronomers Have Discovered A Peculiar Rocky Exoplanet With Three Glowing Red Suns

[ScienceAlert \(AUS\)](#) (7/28, Starr) "Our Sun is a lone wolf of a star, but out there in the wider Universe, stars are often locked in a dance with others, orbiting a mutual centre of gravity. In one such triple-star system, astronomers have just found an exoplanet."

Editorial: Thumbs Up For Carroll Countian Working On Space Telescope, New Distillery Law, Nonprofit Serving First-responders, Teacher Honors

[Baltimore Sun](#) (7/27) "Thumbs up: With the 50th anniversary of the Apollo 11 moon landing still fresh, we could be forgiven for having stars and planets on our minds. But there's much to be excited about when it comes to space beyond just nostalgia for the golden era of spaceflight. As a huge, glittering, golden example of this, consider the James Webb Space Telescope being developed here in Maryland."

DARPA's Satellite Servicing Robot To Get Another Shot

[Space News](#) (7/28) "The Defense Advanced Research Projects Agency is considering proposals from potential new partners for its program to send a robot to space to repair satellites. DARPA suffered a major setback in January when Maxar withdrew from the project known as Robotic Servicing of Geosynchronous Satellites, or RSGS. Now the agency wants to give it one more try."

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Thanks,

Vince Elliott

Lucy Deputy Project Manager/Resources (155.3/434)

Planetary Science Business Branch Head (155.3)

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cell 66 [REDACTED]

From: Johnson, Lindley (HQ-DG000)
To: Johnson, Alana R. (HQ-NG000)[InuTeg, LLC]; Glaze, Lori S. (HQ-DG000)
Cc: Fast, Kelly E. (HQ-DG000); Andrews, Victoria Pidgeon (HQ-CQ000)
Subject: Re: Close approach of sizable asteroid
Date: Thursday, July 25, 2019 8:40:27 AM
Attachments: image001.png

I saw a couple of web stories, but it may have happened so fast that most news media missed it.

Lindley

Lindley N Johnson
Planetary Defense Officer
HQ NASA

----- Original Message -----

From: "Johnson, Alana R. (HQ-NG000)[InuTeg, LLC]" <alana.r.johnson@nasa.gov>
Date: Thu, July 25, 2019 8:27 AM -0400
To: "Johnson, Lindley (HQ-DG000)" <lindley.johnson@nasa.gov>, "Glaze, Lori S. (HQ-DG000)" <lori.s.glaze@nasa.gov>
CC: "Fast, Kelly E. (HQ-DG000)" <kelly.e.fast@nasa.gov>, "Andrews, Victoria Pidgeon (HQ-CQ000)" <victoria.p.andrews@nasa.gov>
Subject: Re: Close approach of sizable asteroid

Thank you, Lindley.
Keeping an eye out for media activity.

VR,
Alana

Alana R. Johnson
Senior Communications Specialist
Planetary Science Division
National Aeronautics and Space Administration
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O: 202-358-1501
C: 



From: "Johnson, Lindley (HQ-DG000)" <lindley.johnson@nasa.gov>
Date: Wednesday, July 24, 2019 at 8:52 PM
To: "Glaze, Lori S. (HQ-DG000)" <lori.s.glaze@nasa.gov>, "Johnson, Alana R. (HQ-NG000)"

[InuTeq, LLC]" <alana.r.johnson@nasa.gov>

Cc: "Fast, Kelly E. (HQ-DG000)" <kelly.e.fast@nasa.gov>, "Andrews, Victoria Pidgeon (HQ-CQ000)" <victoria.p.andrews@nasa.gov>

Subject: Close approach of sizable asteroid

Because there may be media coverage tomorrow, I'm alerting you that in about 30 mins a 57-130 meter sized asteroid will pass Earth at only 0.19 lunar distances (~48,000 miles). 2019 OK was spotted about 24 hrs ago by SONEAR, a Brazilian team of pro-ams. Once reported to MPC and put on NEO Confirmation Page, both Pan-STARRS and ATLAS were able to find pre-recovery observations back to June 28, and CNEOS at JPL determined this close approach tonight. It has just been cataloged by MPC and is now up on the websites.

Lindley

Lindley N Johnson
Planetary Defense Officer
HQ NASA

From: [Johnson, Alana R. \(HQ-NG000\)\[InuTeg, LLC\]](#)
To: [Johnson, Lindley \(HQ-DG000\)](#); [Glaze, Lori S. \(HQ-DG000\)](#)
Cc: [Fast, Kelly E. \(HQ-DG000\)](#); [Andrews, Victoria Pidgeon \(HQ-CQ000\)](#)
Subject: Re: Close approach of sizable asteroid
Date: Thursday, July 25, 2019 8:27:12 AM
Attachments: [image001.png](#)

Thank you, Lindley.
 Keeping an eye out for media activity.

VR,
 Alana

Alana R. Johnson
 Senior Communications Specialist
 Planetary Science Division
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Headquarters Washington, D.C.
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 O: 202-358-1501
 C: [REDACTED]



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To: "Glaze, Lori S. (HQ-DG000)" <lori.s.glaze@nasa.gov>, "Johnson, Alana R. (HQ-NG000) [InuTeg, LLC]" <alana.r.johnson@nasa.gov>
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Lindley

Lindley N Johnson
 Planetary Defense Officer
 HQ NASA

To: [Zurbuchen, Thomas H. \(HQ-DA000\)](#)
Cc: [Wolf, Katherine M. \(HQ-DL000\)](#)
Subject: Fwd: Close approach of sizable asteroid

FYSA

Dr. Lori S. Glaze
Director, Planetary Science Division
NASA

Lori.S.Glaze@nasa.gov
[202-358-1588](tel:202-358-1588)

Begin Forwarded Message:

From: "Johnson, Lindley (HQ-DG000)" <lindley.johnson@nasa.gov>
Subject: Close approach of sizable asteroid
Date: 24 July 2019 17:52
To: "Glaze, Lori S. (HQ-DG000)" <lori.s.glaze@nasa.gov>, "Johnson, Alana R. (HQ-NG000)[InuTeq, LLC]" <alana.r.johnson@nasa.gov>
Cc: "Fast, Kelly E. (HQ-DG000)" <kelly.e.fast@nasa.gov>, "Andrews, Victoria Pidgeon (HQ-CQ000)" <victoria.p.andrews@nasa.gov>

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Lindley N Johnson
Planetary Defense Officer
HQ NASA

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Cc: [Fast, Kelly E. \(HQ-DG000\)](#); [Andrews, Victoria Pidgeon \(HQ-CQ000\)](#)
Subject: Re: Close approach of sizable asteroid

Thanks for the alert. I'll forward to Thomas.

Dr. Lori S. Glaze
Director, Planetary Science Division
NASA

Lori.S.Glaze@nasa.gov
[202-358-1588](tel:202-358-1588)

On: 24 July 2019 17:52, "Johnson, Lindley (HQ-DG000)" <lindley.johnson@nasa.gov> wrote:

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Planetary Defense Officer
HQ NASA